What is claimed is:

1. A method to promote wound healing in a patient, comprising:
   administering a nucleic acid encoding a growth factor to a patient at a wound site; and
   applying an electric field to the wound site in an amount sufficient to increase expression of the encoded growth factor.
2. The method of claim 1 wherein the electric field is applied in pulses.
3. The method of claim 2 wherein 1 to 100 pulses are applied to the wound site.
4. The method of claim 2 wherein the pulse is from 1 microsecond to 5 seconds in duration.
5. The method of claim 1 wherein the electric field is from 10 to 5,000 V/cm.
6. The method of claim 2 wherein the pulse is a square wave pulse.
7. The method of claim 1 wherein the wound is cutaneous.
8. The method of claim 1 wherein the wound is muscular.
9. The method of claim 1 wherein the wound is an osseus lesion.
10. The method of claim 1 wherein the wound is a gastrointestinal anastamosis.
11. The method of claim 1 wherein the growth factor is Keratinocyte Growth Factor-1 (KGF-1).
12. The method of claim 1 wherein the growth factor is Platelet Derived Growth Factor (PDGF).
13. The method of claim 1 wherein the growth factor is vascular epidermal growth factor (VEGF).
14. The method of claim 1 wherein the growth factor is hypoxia induced factor 1-α (HIF 1-α).
15. The method of claim 1 wherein the wound is a burn wound.
16. The method of claim 1 wherein the electric field is applied via an endoscope.
17. The method of claim 1 wherein the wound is a decubitus ulcer.

18. The method of claim 1 wherein one or more nucleic acids encoding at least two growth factors is administered.
19. The method of claim 1 wherein the nucleic acid is a plasmid.
20. The method of claim 1 wherein the patient is diabetic.
21. The method of claim 1 wherein the wound eschar is removed surgically prior to administering the nucleic acid.
22. A method to promote wound healing in a patient, comprising:

    administering a nucleic acid encoding a HIF 1-α to a patient at a wound site; and

    applying between 1 and 20 pulses of between 500 and 2,000 V/cm and between 10 and 1000 microseconds to the wound site,

    whereby wound healing is stimulated.
23. The method of claim 22 wherein the wound eschar is removed surgically prior to administering the nucleic acid.
24. The method of claim 22 wherein the nucleic acid is a plasmid
25. A kit for treating wounds, comprising:

    a nucleic acid encoding a growth factor; and

    one or more electrodes for applying an electric field to a wound.
26. The kit of claim 25 wherein the electrode is disposable.
27. The kit of claim 25 wherein the electrode is sterile.
28. The kit of claim 25 wherein the electrode is needle-shaped.
29. The kit of claim 25 wherein the electrode is paddle-shaped.
30. The kit of claim 25 wherein the electrode is disk-shaped.
31. The kit of claim 25 wherein the electrode is stainless steel.
32. The kit of claim 25 wherein the electrode is gold-coated.
33. The kit of claim 25 wherein the electrode is gold-plated.
34. The kit of claim 25 wherein the electrode is gold-tipped.
35. The kit of claim 25 wherein the electrode is brass.
36. The kit of claim 25 wherein the electrode is coated with the nucleic acid.
37. The kit of claim 26 further comprising a re-usable handle for receiving the one or more electrodes.

38. The kit of claim 25 wherein the nucleic acid is in a container separate from the one or more electrodes.
39. The kit of claim 25 further comprising an electoporator configured to generate an electric field.
40. The kit of claim 25 further comprising an electroporator configured to generate an electric pulse.